

**Remarks**

Claims 1-38 were pending. Applicants have amended claims 1-5, 7, 11-18 and 26, canceled claims 8, 10 and 38, and added new claim 39. Accordingly, claims 1-7, 9, 11-37 and 39 are currently pending.

Support for the amendment to claim 1 may be found *inter alia* on page 4, lines 32-37 of the subject specification.

Support for the amendment to claim 2 may be found *inter alia* on page 4, lines 32-34 of the subject specification.

Support for the amendment to claim 3 may be found *inter alia* on page 5, lines 10-12 of the subject specification.

Support for the amendment to claim 4 may be found *inter alia* on page 5, lines 13-14 of the subject specification.

Support for the amendment to claim 5 may be found *inter alia* on page 5, lines 15-16 of the subject specification.

Support for the amendment to claim 7 may be found *inter alia* on page 5, lines 20-21 of the subject specification.

Support for the amendment to claim 11 may be found *inter alia* on page 5, lines 31-34 of the subject specification.

Support for the amendment to claim 12 may be found *inter alia* on page 5, lines 35-36 of the subject specification.

Support for the amendment to claim 13 may be found *inter alia* on page 6, lines 5-7 of the subject specification.



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Support for the amendment to claim 14 may be found *inter alia* on page 6, line 7 of the subject specification.

Support for the amendment to claim 15 may be found *inter alia* on page 6, lines 10-11 of the subject specification.

Support for the amendment to claim 16 may be found *inter alia* on page 6, lines 12-14 of the subject specification.

Support for the amendment to claim 17 may be found *inter alia* on page 6, lines 15-17 of the subject specification.

Support for the amendment to claim 18 may be found *inter alia* on page 6, lines 18-21 of the subject specification.

Support for the amendment to claim 26 may be found *inter alia* on page 7, lines 14-27 of the subject specification.

Support for new claim 39 may be found *inter alia* on page 5, lines 28-34 of the subject specification.

#### **Restriction Requirement**

In the July 25, 2007 Office Action, the Examiner acknowledged Applicants' election of Group I, claims 1-17 and 38 in the reply filed on April 30, 2007; however, the election was treated as an election without traverse because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement. The Examiner also noted that claims 18-37 are withdrawn from further consideration pursuant to 37 C.F.R. 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.



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**Claim Objections (Claims 1-5, 7-8, 10 and 11)**

In the July 25, 2007 Office Action, the Examiner objected to claims 1-5, 7-8, 10 and 11 for various reasons:

In response, Applicants have made amendments which are deemed responsive and respectfully request that the Examiner reconsider and withdraw the claim objections.

**Rejection Under 35 U.S.C. §112(Second Paragraph) - Claims 10 and 38**

On page 3 of the July 25, 2007 Office Action, the Examiner rejected claims 10 and 38 under 35 U.S.C. §112(Second Paragraph) asserting that claims 10 and 38 are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In response, Applicants have canceled claims 10 and 38 although new claim 39 has been added to replace now canceled claim 10.

Applicants maintain that new claim 39 complies with 35 U.S.C. §112, 2<sup>nd</sup> paragraph and request that the Examiner reconsider and withdraw this ground of rejection.

**Rejection Under 35 U.S.C. §103(a) - Claims 1, 3-17 and 38**

On page 4 of the July 25, 2007 Office Action, the Examiner rejected claims 1, 3-17 and 38 under 35 U.S.C. §103(a) asserting them to be unpatentable over Schneider (U.S. Patent No. 4,774,213). Specifically, the Examiner asserted that Schneider discloses the claimed catalyst containing iron compound in combination with acid aluminosilicate, which is clay. The Examiner noted that Schneider is silent with respect to the concentrations of the iron and clay, it appears that the minimum



concentrations for these components required by subject claim 1 would be met by the teaching of Schneider. In addition, the Examiner alleged that the limitations of claims 8-17 are intended as use limitations, and that the instant claims are called for "a catalyst" and that the catalyst being claimed does not depend on the intended use recitations for completeness, but the catalyst limitations are able to stand alone.

*Applicants' Response:*

In response, Applicants submit that the use of a catalyst comprising clay, gypsum, alumina and hydrated iron oxide for the removal of hydrogen sulfide from gas streams is neither taught nor suggested by the cited prior art.

Applicants are now claiming a catalyst comprising at least 5% by weight gypsum.

Specifically, the composition of the now claimed catalyst requires the presence of gypsum. Schneider does not disclose a catalyst containing gypsum. Therefore, it cannot be obvious from Schneider to obtain applicants' claimed catalyst which comprises at least 5% gypsum. Applicants have shown that in their claimed catalyst gypsum plays a key role in the process of hydrogen sulfide removal and regeneration of catalyst. Gypsum has the unique property of being able to absorb water and release it on heating, since it contains two molecules of water of hydration. During catalyst preparation gypsum is added as the hydrated salt, which loses the water of hydration during heat treatment, helping to increase the catalyst porosity.

Finally, Applicants' note that their catalyst can be regenerated multiple times. Schneider does not teach or suggest a catalyst that may be regenerated at all.



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Accordingly, for the foregoing reasons, there is nothing in Schneider which would render obvious applicants' claimed catalyst which contains at least 5% gypsum.

In conclusion, Applicants respectfully submit that their now claimed invention is inventive over the prior art. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection on the basis of obviousness over Schneider.

Applicants further note that the pending withdrawn claims directed to the process of making and to the case of this claimed catalyst should be rejoined with the claims to the catalyst once the claims to the catalyst are allowed.

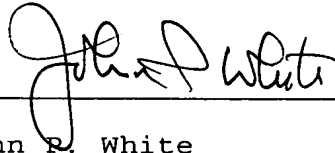
If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.



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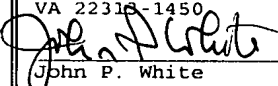
No fee, other than the \$105.00 excess claims fee, is deemed necessary in connection with the filing of this Response. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

  
John P. White  
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10/25/07  
Date